

In the Claims:

Please cancel Claims 1 – 86 from the application and insert new Claims 87 – as follow:

87. A method of messaging over a network between patients and healthcare
5 providers, comprising steps of:

initiating a query message by a patient from a patient-operated computer using a
first medical messaging wizard;

generating a problem-specific, patient-specific electronic form for said patient to
complete by said first medical messaging wizard from a problem-related database and
said patient's medical profile, wherein a form completed by said patient comprises a
query message;

sending said query message to a workflow engine at a separate network location
from said patient-operated computer;

attaching said patient's medical profile to said query message by said workflow
15 engine;

routing said query message with said attached medical profile to a physician-
operated computer at a network location separate from said patient-operated computer
and said workflow engine;

using a second medical messaging wizard from said physician-operated
20 computer, viewing said query message by a first physician, generating a response
message and directing said response message to said patient;

wherein said patient-operated computer and said physician-operated computer
are intermittently connected to said network.

88. The method of Claim 87, further comprising steps of:
appending a billing to said response; and
generating a patient response log entry in said medical profile of said patient at
5 said workflow engine.

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10 89. The method of Claim 88, further comprising steps of:
encrypting said query message at said patient-operated computer;
decrypting said encrypted query message at said workflow engine;
encrypting said decrypted query message by said workflow engine;
decrypting said query message from said workflow engine at said physician-
operated computer;
encrypting said response at said physician-operated computer; and
any of the steps of:
15 decrypting said encrypted response message at said workflow engine;
and
decrypting said encrypted response message at said patient-operated
computer.

20 90. The method of Claim 87, further comprising steps of:
routing said query message with said attached medical profile to a physician
extender using a separate computer at a separate network location;
using a third medical message wizard:
viewing said query message by said physician extender;

generating a proposed response message to said query message;
attaching said proposed response message to said query message;
routing said query message with said proposed response message to said
first physician; and

5 generating said response message by said first physician using said
medical message wizard based on said proposed response message.

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91. The method of Claim 90, wherein said physician extender comprises either of an
administrator and a physician assistant.

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10 92. The method of Claim 87, further comprising a step of:
embedding a prescription in said response message.

93. The method of Claim 92, further comprising steps of:
15 selecting a pharmacy by said patient; and
directing a message to said pharmacy by said patient ordering said prescription.

94. The method of Claim 90, wherein said physician extender comprises a nurse,
said step of generating a proposed response to said query comprising a step of:
20 embedding a proposed prescription refill in said proposed response.

95. The method of Claim 94, further comprising steps of:
reviewing said proposed prescription refill by said first physician; and
any of the steps of:

approving said proposed prescription refill;
revising said proposed prescription refill;
deleting said proposed prescription refill; and
embedding a second prescription.

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96. The method of Claim 90, wherein said third message wizard is implemented as a computer program residing in computer readable media accessible by said physician extender operating said computer.

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10 97. The method of Claim 88, further comprising a step of generating a billing report from said medical profile of said patient:

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98. The method of Claim 97, said network including a billing system accessing said network at a billing system address on said network, and further comprising steps of:

15 sending said billing report from said medical profile of said patient to said billing system address; and

billing said patient from said billing report.

99. The method of Claim 98, wherein billing said patient comprises either of:

20 generating a personal bill for said patient; and

generating at least one insurance bill for said patient to a corresponding insurance provider.

100. The method of Claim 87, wherein generating a response to said query message further comprises;

generating a first-physician-second opinion request message;

sending said first-physician-second opinion request message to a second

5 physician at a corresponding second physician address;

viewing said second opinion request message by said second physician;

generating a second opinion message by said second physician; and

10 sending said second opinion message to said first physician.

101. The method of Claim 87, further comprising a step of maintaining a collection of patient response templates, wherein said first physician invokes one of said collection of templates in responding to said query message.

102. The method of Claim 87, further comprising steps of:

15 maintaining a routing table including at least one routing directive to said first physician;

wherein sending said patient medical query message to a first physician with said corresponding physician address further comprises;

20 examining said routing table based upon said patient medical query message to find a first of said routing directives to said first physician compatible with said patient medical query message;

finding said first routing directive to said first physician compatible with said patient medical query message.

103. The method of Claim 87, wherein said messaging protocol supports email.

104. The method of Claim 103, wherein said messaging protocol supports TCP/IP.

105. The method of Claim 104, wherein said messaging protocol supports the World
5 Wide Web.

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106. The method of Claim 87, wherein said second message wizard is implemented
as a computer program residing on a computer readable medium accessible by said
physician-operated computer.

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107. The method of Claim 87, wherein said first message wizard is implemented as a
10 computer program residing on a computer readable medium accessible by said patient
operated computer.

15 108. The method of Claim 87, wherein said workflow engine resides on at least one
server capable of accessing said network to receive and send messages; and wherein
said workflow engine is implemented as a program system wherein the various stated
operations are implemented as component programs which may be concurrently
operating.

20 109. The method of Claim 108, wherein said workflow engine resides on exactly one
server capable of accessing said network to receive and send messages.

110. A computer program residing on a computer readable medium accessible by a workflow engine computer system communicating with a network, said network further communicating with at least one patient operated computer and further communicating with at least one physician operated computer comprising;

5 code for receiving a query message from a patient via said patient operated computer and generating a patient message log entry in a medical profile of said first patient;

code for attaching said patient's medical profile to said query message by said workflow engine; and

10 code for receiving a patient response message from a first physician based upon said query message from said first patient and generating a physician response log entry in said medical profile of said first patient.

111. The computer program of Claim 110, further comprising code for determining
15 said first physician based upon said query message received from said patient.

112. The computer program of Claim 110, further comprising:

code for determining if said received patient response message contains an embedded prescription;

20 code for receiving a patient prescription order message from said first patient;
and

code for generating a prescription order message based upon said received patient prescription order message and said received patient response message and for sending said prescription order message to a first pharmacy.

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113. The computer program of Claim 110, wherein said network further communicates with at least one physician extender operated computer; and

further comprising code for generating a second query message based upon said
5 received query message from said patient and sending said second query message to a first of said physician extender operated computer.

114. The computer program of Claim 113, wherein said code for generating a second query message based upon said received query message from said patient and
10 sending said second patient medical query message to a first of said physician extenders further comprises code for determining said first physician extender based upon said received query message from said first patient.

115. The computer program of Claim 114, further comprising code for receiving a
15 proposed patient response message from said first physician extender via said physician extender operated computer and generating a proposed first response log entry from said received proposed first patient response message in said medical profile of said patient.

20 116. The computer program of Claim 114, wherein said code for generating a second patient medical query message based upon said received educated query message from said first patient and sending said second patient medical query message to a first of said physician extenders further comprises code for:

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determining a routing chain comprised of at least one successor physician extender of a physician extender routing collection comprising each of said physician extenders and embedding said routing chain into said second patient medical query message;

5 wherein said proposed patient response is routed from said first physician extender to each said successor physician extender belonging to said routing chain until each said successor physician extender has responded to said proposed patient response; and

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10 wherein after each successor physician extender has responded to said proposed patient response to create a collectively proposed patient response message, said collectively patient response message is routed to said first physician.

117. The computer program of Claim 110, further comprising code for generating a routing tree comprised of at least one routing arrow based upon said received query,
15 each of said routing arrows contains a source and a destination belonging to a tree routing collection comprised of at least each of said physicians, and each of said routing arrows connecting to form a chain containing a final destination of said first physician; and

code for generating a source patient query message for each said source of each
20 said routing arrow of said routing tree containing said chain of said routing arrow and sending said source patient query message to said source of said routing arrow of said routing tree.

118. The computer program of Claim 117, further comprising code for receiving a partial patient response message from each said source of each said routing arrow and generating a partial patient response log entry in said medical profile of said first patient.

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